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Wang, W. and Li, Q. and Zhang, L. and Siew, W.H. (2009) *Evaluation of the EMC environment generated by a static var compensator.* In: 2009 CIGRE SC-C4 Meeting & Colloquium, 2009-06-07 - 2009-06-13, Kushiro.

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2009/4/6

2009 CIGRE SC C4 Colloquium Program (Tentative)

<table>
<tr><td></td><td></td><td>Room A</td><td>Room B</td></tr>
<tr><td rowspan="2">6/8</td><td>AM
(9:00-12:30)
Opening
Ceremony</td><td colspan="2">9:00- 9:30 Welcome address: (Japan)
Opening address: C. A. Nucci(Italy) SC C4 Chairman
9:30-10:30 Plenary lecture: M. T. Correia de Barros (Portugal)
10:30-11:00 Coffee Break
11:00-11:45 Invited lecture 1: Hokkaido Electric Power Company (Japan)
11:45-12:30 Invited lecture 2: M. Ishii (Japan)</td></tr>
<tr><td>PM
(14:00-18:00)
Colloquium</td><td>EMC, Insulation design, Immunity in Low Voltage and Control Circuits in Power Plants and HV Substations
Chair: J. Hoeffelman (Belgium)*
Reporter: K. Nojima(Japan)</td><td>Lightning Protection for Wind Turbine Generator Systems
Chair: S. Yokoyama (Japan)
Reporter: B. Hermoso (Spain)

Lightning Parameters Update
Chair: M. Ishii (Japan)
Reporter: G. Diendorfer (Austria)</td></tr>
<tr><td rowspan="2">6/9</td><td>AM
(9:00-11:30)
Colloquium</td><td rowspan="2">Power Quality Management and Improvement
Chair: R. Koch(South Africa)*
Reporter: N. Kobayashi (Japan)</td><td>Insulation Coordination in HV, MV, and Cable Systems
Chair: C. Neumann (Germany)
Reporter: E. Zaima (Japan)</td></tr>
<tr><td>PM
(13:30-17:00)
Colloquium</td><td>Application of Numerical Electromagnetic Analysis to Power System Transients
Chair: C. A. Nucci (Italy)
Reporter: K. Yamabuki (Japan)</td></tr>
</table>

* Chair may be changed

Session Program (Tentative)

6/8 PM Room A	**EMC, Insulation design, Immunity in Low Voltage and Control Circuits in Power Plants and HV Substations** Chair: J. Hoeffelman (Belgium)* Session Report: K. Nojima(Japan) 1. Evaluation of the EMC Environment Generated by a Static Var Compensator Wei Wang et al.(P. R. China) 2. Analysis of Radiated Emissions within a Substation Installed with a Static Var Compensator Device Li Zhang et al. (P. R. China) 3. Distributed Wireless Transient Measurement System in Power Substation K. Y. Liu et al. (U.K.) 4. Electric and Magnetic Field Distribution inside High Voltage Power Substations. Numerical Modeling and Experimental Measurements Gh. Visan et al. (Romania) 5.Characteristics of Induced Surge Voltages on Low-voltage and Control Circuits in a 300kV-substation T. Ueda et al. (Japan) 6. Measurements of Surge Voltage on Low-voltage Circuits in Substations M. Yoshida, T. Ueda (Japan) 7. Experimental Study of Lightning Surge Aspect for the Circuit Mounted Distribution and Telecommunication and Customer System - Aspect of Lightning Current According to Grounding System of Customer A. Asakawa et al. (Japan) 8. Approach for the Protection of HV Power Grid Network Control Electronics from Intentional Electromagnetic Interference (IEMI) W. Radasky(U.S.A.)

* Chair may be changed

6/8 PM Room B	**Lightning Protection for Wind Turbine Generator Systems** Chair: S. Yokoyama (Japan) Session Report: B. Hermoso (Spain) 1. Lightning on Blades Surface of Wind Turbine Generators B. Hermoto, J. Montanya (Spain) 2. Observation Results of Characteristics of Winter Lightning and Experimental Results on Lightning Protection for Wind Turbines Y. Hongo, S. Yokoyama (Japan) 3. Transient Grounding Characteristics of an Actual Wind Turbine Generator System at the Low Resistivity Site K. Yamamoto et al. (Japan) 4. An Investigation on a Surge Characteristic of a Submarine Power Cable Connected with an Offshore Wind Farm K. Yamabuki et al. (Japan) 5. A Study on Insulation Coordination of a Wind Turbine Generator System and Distribution Line S. Sekioka, T. Funabashi (Japan) **Lightning Parameters Update** Chair: M. Ishii (Japan) Session Report: G. Diendorfer (Austria) 1. Direct Lightning Hits to Wind Turbines in Winter Season -Lightning Observation Result for Wind Turbines at Nikaho Wind Park in Winter – A . Asakawa et al. (Japan) 2. Some Parameters of Correlated Current and Radiated Field Pulses of Lightning to the Gaisberg Tower H. Pichler et al. (Austria) 3. Review of CIGRE Report "Cloud-to-Ground Lightning Parameters Derived from Lightning Location Systems -The Effects of System G. Diendorfer et al. (Austria) 4. Construction of Lightning Hazard Map in Japan by Considering both of Lightning Current and Lightning Density : 25km Meshes for Substation & Transmission Line H. Matsubara, T. Suda, (Japan) 5. Proposal of Charge Estimation Method Associated with Return Stroke S. Kawamoto et al. (Japan)

6/9 AM Room A	**Power Quality Management and Improvement** Chair: R. Koch(South Africa)* Session Report: N. Kobayashi (Japan) 1. Design and Evaluation of Advanced Voltage Conditioning System S. Suzuki et al. (Japan) 2.Improvement of Flicker Control Performance for a SVC N. Gibo et al. (Japan) 3. A Simple Voltage Sag/Swell Supporter for Industrial Distribution System A. C. Venkatesh et al. (India) 4. Romanian HV Power Quality Management based on National Performance Standards D. Ilisiu , F. Balasiu(Romania) 5. The Technical Results of the Power Quality Monitoring Systems C. Stanescu (Romania)

* Chair may be changed

6/9 AM Room B	**Insulation Coordination in HV, MV, and Cable Systems** Chair: C. Neumann (Germany) Session Report: E. Zaima (Japan) 1. Absorbent Water Battery set up in the Vat of Oil Transformer I. Rusu (Romania) 2. Development of Generator Model for Lightning Surge Analysis and its Application to Insulation Coordination in Hydropower Stations Y. Uga et al. (Japan) 3. Introduction of IEEJ Technical Report No.1132 "Power Technology of Japan through the Experience of Developments and Applications of Surge Arresters" IEEJ Surge Arresters Investigating R&D Committee (Japan) 4. Insulation Co-ordination based on 1100kV High Performance Surge Arresters T. Nakamura et al. (Japan) 5. Insulation Co-ordination for HVDC125-upgrade 500kV Converter Stations of Japan by Zinc Oxide Surge Arresters S. Shirakawa et al. (Japan)

6/9 PM Room A	**Power Quality Management and Improvement (Contd.)** Chair: R. Koch(South Africa)* Session Report: N. Kobayashi (Japan) 1. Development of an Output Management System for the "Wakkanai Mega-Solar" Project Y. Ueda et al. (Japan) 2. Site test of Power System Stabilizer in Micro-Grid into which a large amount of PV power generation system are introduced S. Suzuki et al. (Japan) 3. Minimal-order Observer based Control of Isolated Utility Connected PV-diesel Hybrid system to Reduce Frequency Deviation using Battery M. Datta et al. (Japan) 4. Locating Accuracy Analysis of a New Fault Locator System M. Shugo et al. (Japan) 5. Results of Algebraic Equation for the Steady-State Stability Limits in Voltage-Constrained Transmission Systems F. M. EL-Sadik (Sudan) 6. Reduction of Transformer Inrush Current using a Controlled Switching System for Circuit Breakers with Ganged three-phase Operation K. Shimotani et al. (Japan) 7. Kyushu Electric's Efforts to Improve Power Quality S. Nishimura et al. (Japan) 8. Reducing the Capacity of an Active Power Quality Compensator for Electrified Railways with Reactive Power Control T. Tanaka et al. (Japan)

* Chair may be changed

6/9 PM Room B	**Application of Numerical Electromagnetic Analysis to Power System Transients** Chair: C. A. Nucci (Italy) Session Report: K. Yamabuki (Japan) 1. Performance of Proposed Thin Wire Model in Finite Difference Time Domain Method K. Tanabe (Japan) 2. Analytical Study on Lightning Surge Characteristics of a Rail Track H. Arai et al. (Japan) 3. Influence of a Voltage Reference wire and a Current lead Wire to a Transient Voltage on a Vertical Conductor P. Yutthagowith et al. (Japan) 4. Prediction of switching transients in high voltage air-insulated substations W. H. Siew et al. (U.K.) 5. Modeling of a Current Transformer for Electromagnetic Transient Simulation in a Power Station K. Nishimura et al. (Japan) 6. Modeling of the GDT(Gas Discharge Tube) for ATP-EMTP T. Idogawa et al. (Japan) 7. Surge Voltages and Currents into a Customer due to Nearby Lightning K. Matsuoka et al. (Japan)